SEQUENCE LISTING

<110> Pharmacia & Upjohn <120> Crystallization and Structure Determination of Staphylococcus Aureus Thymidylate Kinase <130> 6245.NCP <140> Unassigned <141> 2000-08-04 <150> 60/147,117 <151> 1999-08-04 <160> 3 <170> PatentIn Ver. 2.1 <210> 1 <211> 214 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Recombinant Staphylococcus aureus thymidylate kinase with 6-His tag <400> 1 Met Gly Ser Ala Phe Ile Thr Phe Glu Gly Pro Glu Gly Ser Gly Lys 10 15 5 Thr Thr Val Ile Asn Glu Val Tyr His Arg Leu Val Lys Asp Tyr Asp 25 30 20 Val Ile Met Thr Arg Glu Pro Gly Gly Val Pro Thr Gly Glu Glu Ile 35 40 45 Arg Lys Ile Val Leu Glu Gly Asn Asp Met Asp Ile Arg Thr Glu Ala 55 Met Leu Phe Ala Ala Ser Arg Glu His Leu Val Leu Lys Val Ile 70 65 75

85

Pro Ala Leu Lys Glu Gly Lys Val Val Leu Cys Asp Arg Tyr Ile Asp

90

Ser Ser Leu Ala Tyr Gln Gly Tyr Ala Arg Gly Ile Gly Val Glu 100 105 110

Val Arg Ala Leu Asn Glu Phe Ala Ile Asn Gly Leu Tyr Pro Asp Leu 115 120 125

Thr Ile Tyr Leu Asn Val Ser Ala Glu Val Gly Arg Glu Arg Ile Ile 130 135 140

Lys Asn Ser Arg Asp Gln Asn Arg Leu Asp Gln Glu Asp Leu Lys Phe 145 150 155 160

His Glu Lys Val Ile Glu Gly Tyr Gln Glu Ile Ile His Asn Glu Ser 165 170 175

Gln Arg Phe Lys Ser Val Asn Ala Asp Gln Pro Leu Glu Asn Val Val 180 185 190

Glu Asp Thr Tyr Gln Thr Ile Ile Lys Tyr Leu Glu Lys Ile Arg Ser 195 200 205

His His His His His His 210

<210> 2

<211> 213

<212> PRT

<213> Escherichia coli

<400> 2

Met Arg Ser Lys Tyr Ile Val Ile Glu Gly Leu Glu Gly Ala Gly Lys

1 5 10 15

Thr Thr Ala Arg Asn Val Val Val Glu Thr Leu Glu Gln Leu Gly Ile
20 25 30

Arg Asp Met Val Phe Thr Arg Glu Pro Gly Gly Thr Gln Leu Ala Glu 35 40 45

Lys Leu Arg Ser Leu Val Leu Asp Ile Lys Ser Val Gly Asp Glu Val 50 55 60

Ile Thr Asp Lys Ala Glu Val Leu Met Phe Tyr Ala Ala Arg Val Gln 65 70 75 80

Leu Val Glu Thr Val Ile Lys Pro Ala Leu Ala Asn Gly Thr Trp Val 85 90 95 Ile Gly Asp Arg His Asp Leu Ser Thr Gln Ala Tyr Gln Gly Gly 100 \$105\$

Arg Gly Ile Asp Gln His Met Leu Ala Thr Leu Arg Asp Ala Val Leu 115 120 125

Gly Asp Phe Arg Pro Asp Leu Thr Leu Tyr Leu Asp Val Thr Pro Glu 130 135 140

Val Gly Leu Lys Arg Ala Arg Ala Arg Gly Glu Leu Asp Arg Ile Glu 145 150 155 160

Gln Glu Ser Phe Asp Phe Phe Asn Arg Thr Arg Ala Arg Tyr Leu Glu 165 170 175

Leu Ala Ala Gln Asp Lys Ser Ile His Thr Ile Asp Ala Thr Gln Pro 180 185 190

Leu Glu Ala Val Met Asp Ala Ile Arg Thr Thr Val Thr His Trp Val
195 200 205

Lys Glu Leu Asp Ala 210

<210> 3

<211> 216

<212> PRT

<213> Saccharomyces cerevisiae

<400> 3

Met Met Gly Arg Gly Lys Leu Ile Leu Ile Glu Gly Leu Asp Arg Thr 1 5 10 15

Gly Lys Thr Thr Gln Cys Asn Ile Leu Tyr Lys Lys Leu Gln Pro Asn 20 25 30

Cys Lys Leu Leu Lys Phe Pro Glu Arg Ser Thr Arg Ile Gly Gly Leu 35 40 45

Ile Asn Glu Tyr Leu Thr Asp Asp Ser Phe Gln Leu Ser Asp Gln Ala
50 55 60

Ile His Leu Leu Phe Ser Ala Asn Arg Trp Glu Ile Val Asp Lys Ile 65 70 75 80

Lys Lys Asp Leu Leu Glu Gly Lys Asn Ile Val Met Asp Arg Tyr Val

90

95

Tyr Ser Gly Val Ala Tyr Ser Ala Ala Lys Gly Thr Asn Gly Met Asp 100 105 110

Leu Asp Trp Cys Leu Gln Pro Asp Val Gly Leu Leu Lys Pro Asp Leu 115 120 125

Thr Leu Phe Leu Ser Thr Gln Asp Val Asp Asn Asn Ala Glu Lys Ser 130 135 140

Gly Phe Gly Asp Glu Arg Tyr Glu Thr Val Lys Phe Gln Glu Lys Val
145 150 155 160

Lys Gln Thr Phe Met Lys Leu Leu Asp Lys Glu Ile Arg Lys Gly Asp 165 170 175

Glu Ser Ile Thr Ile Val Asp Val Thr Asn Lys Gly Ile Gln Glu Val 180 185 190

Glu Ala Leu Ile Trp Gln Ile Val Glu Pro Val Leu Ser Thr His Ile 195 200 205

Asp His Asp Lys Phe Ser Phe Phe 210 215

85